HINES
724666

=> del his y

=> fil caplu;e tl-gamma/ct 5

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	304.04	813.18

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-11.76	-17.05

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```
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1           0     1     TL/CT
E2           0     2     TL 265/CT
E3           0       --> TL-GAMMA/CT
E4           0     1     TL1+/CT
E5           0     1     TL2O/CT

=> e thermomyces lanuginosus gamma/ct 5
E#   FREQUENCY    AT     TERM
--   ---------    --     ----
E1         218    10     THERMOMYCES LANUGINOSUS/CT
E2           0     8     THERMOMYCES LANUGINOSUS CATENULATUS/CT
E3           0       --> THERMOMYCES LANUGINOSUS GAMMA/CT
E4           0     6     THERMOMYCES STELLATUS/CT
E5           1     6     THERMOMYCES VERRUCOSUS/CT

=> e e1+all/ct
E1        2554   BT5  Eukaryote (Eukaryotae)/CT
E2       15406     BT4  Fungi/CT
E3         153       BT3  Ascomycete (Ascomycota)/CT
E4          21         BT2  Pyrenomycetes/CT
E5          22           BT1  Thermomyces/CT
E6         218             -->  Thermomyces lanuginosus/CT
                              HN   Valid heading during volume 76 (1972) to
                                   present.
E7         121                OLD  Humicola lanuginosa/CT
E8                            UF   Thermomyces lanuginosa/CT
E9           1                NT1  Humicola lanuginosa catenulata/CT
E10          0                NT1  Thermomyces lanuginosus catenulatus/CT
*********  END***

=> s e6-e10
           218 "THERMOMYCES LANUGINOSUS"/CT
           121 "HUMICOLA LANUGINOSA"/CT
             0 "THERMOMYCES LANUGINOSA"/CT
             1 "HUMICOLA LANUGINOSA CATENULATA"/CT
             0 "THERMOMYCES LANUGINOSUS CATENULATUS"/CT
L1         337 ("THERMOMYCES LANUGINOSUS"/CT OR "HUMICOLA LANUGINOSA"/CT OR
               "THERMOMYCES LANUGINOSA"/CT OR "HUMICOLA LANUGINOSA CATENULATA"/
               CT OR "THERMOMYCES LANUGINOSUS CATENULATUS"/CT)

=> fil medl,biosis,caplus,embase,jicst,wpids;s (l1 or "ti" or thermomyces
lanuginosus)(a)gamma) or
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               8.75     821.93

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
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                                                        ENTRY     SESSION
CA SUBSCRIBER PRICE                                      0.00      -17.05

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UNMATCHED RIGHT PARENTHESIS 'GAMMA) OR'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s (l1 or "ti" or thermomyces lanuginosus)(a)gamma
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'NUGINOSUS)(A)GAMMA'
L2          267 FILE MEDLINE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'NUGINOSUS)(A)GAMMA'
L3          266 FILE BIOSIS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'NUGINOSUS)(A)GAMMA'
L4        10163 FILE CAPLUS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'NUGINOSUS)(A)GAMMA'
L5          376 FILE EMBASE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'NUGINOSUS)(A)GAMMA'
L6          633 FILE JICST-EPLUS
L7           29 FILE WPIDS

TOTAL FOR ALL FILES
L8        11734 (L1 OR "TI" OR THERMOMYCES LANUGINOSUS)(A) GAMMA

=> s l8(l)(identif? or determ?)(l)(stalk or motor or tail domain)
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L2(L)(IDENTIF?'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'DETERM?)(L)(STALK'
L9            0 FILE MEDLINE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L3(L)(IDENTIF?'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'DETERM?)(L)(STALK'
L10           1 FILE BIOSIS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L4(L)(IDENTIF?'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH


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FIELD CODE - 'AND' OPERATOR ASSUMED 'DETERM?)(L)(STALK'
L11 2 FILE CAPLUS
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L5(L)(IDENTIF?'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'DETERM?)(L)(STALK'
L12 0 FILE EMBASE
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L6(L)(IDENTIF?'
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'DETERM?)(L)(STALK'
L13 0 FILE JICST-EPLUS
L14 0 FILE WPIDS

TOTAL FOR ALL FILES
L15 3 L8(L)(IDENTIF? OR DETERM?)(L)(STALK OR MOTOR OR TAIL DOMAIN)

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16 3 DUP REM L15 (0 DUPLICATES REMOVED)

=> d cbib abs 1-3

L16 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS
1999:487304 Document No. 131:112405 **Identification** and expression of the microtubule **motor** protein kinesin TL-.**gamma**..
Sakowicz, Roman; Goldstein, Lawrence S. B. (The Regents of the University of California, USA). PCT Int. Appl. WO 9937659 A1 19990729, 75 pp.
DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.
APPLICATION: WO 1999-US1355 19990122. PRIORITY: US 1998-PV72361 19980123.
AB The invention concerns the isolation of a nucleic acid sequence from **Thermomyces lanuginosus** that encodes the microtubule **motor** protein kinesin TL-.**gamma**. with the following properties: the protein's activity includes plus end-directed microtubule **motor** activity; the protein has a **tail domain** that has greater than 60% amino acid sequence identity to a TL-.**gamma**. **tail domain** as measured using a sequence comparison algorithm; the protein specifically binds to polyclonal antibodies to TL-.**gamma**.. The invention also concerns antibodies to TL-.**gamma**., methods for screening biol. active TL-.**gamma**., and kits for screening. Using PCR and degenerate primers, TL-.**gamma**. was amplified from **Thermomyces lanuginosus** genomic DNA. The nucleic acid sequence was then used as a probe to isolate a longer TL-.**gamma**. sequence. Recombinant TL-.**gamma**. was prepd. in order to test its activity in a microtubule gliding assay. The pET23-TL-.**gamma**. expression vector was constructed and expressed in E. coli. The kinesin TL-.**gamma**. protein was isolated, it was very stable retaining 100% activity up to 40.degree. after incubation for 15 min as measured using a microtubule dependent ATPase assay. Freshly prepd. protein was used to assay microtubule gliding activity. Taxol stabilized microtubule seeds brightly labeled with rhodamine were prepd. by incubating a 1:1 ratio of rhodamine labeled bovine brain tubulin; also unlabeled bovine brain tubulin was incorporated into the assay. Flow chambers prepd. were preadsorbed with TL-.**gamma**. **motor** protein. A microtubule/ATP mix contg. polarity marked microtubules, taxol, MgATP and

an oxygen scavenging system was then flowed into the chamber. Movement of microtubules was monitored at room temp. on a fluorescence microscope fitted with oil immersion objective and a CCD. For TL-.**gamma**. activity measurement, recombinant TL-.**gamma**. protein was attached to a glass coverslip using non-specific adhesion, and gliding of polarity marked microtubules contg. brightly fluorescent rhodamine labeled seeds near their minus ends was recorded by time-lapse digital fluorescence microscopy. Microtubules moved with brightly fluorescent seeds leading, indicating that the immobilized TL-.**gamma**. protein was moving toward microtubule plus ends. No movement was obsd. in the absence of TL-.**gamma**.. This expt. demonstrates that TL-.**gamma**. has plus-ended microtubule **motor** activity.

L16 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2001 BIOSIS

1993:485139 Document No.: PREV199396118739. Electromyographic activity of rat ischiocavernosus muscles during copulation after treatment with a GABA-transaminase inhibitor. Paredes, Raul G. (1); Holmes, Gregory M.; Sachs, Benjamin D.; Agmo, Anders. (1) Escuela Psicologia, Univ. Anahuac, Apdo. Postal 10-844, Mexico D.F. 11000. Behavioral and Neural Biology, (1993) Vol. 60, No. 2, pp. 118-122. ISSN: 0163-1047. Language: English.

AB The administration of GABA-transaminase inhibitors (GABA-**TIs**) to male rats reduces the proportion of mounts that result in intromissions. Copulatory pelvic thrusting remains normal, despite the fact that animals treated with GABA-**TIs** show gross deficiencies in other **motor** acts. In order to **determine** whether altered sexual behavior produced by GABA-**TI** could be due to deficiencies in activity of striated penile muscles, we recorded the electromyographic (EMG) activity of the ischiocavernosus (IC) muscle during copulation in male rats treated with sodium valproate. The duration of IC EMG bursts was reduced by sodium valproate in separate tests that allowed or prevented intromission. There was no effect on EMG amplitude or frequency. It is suggested that insufficient activity of the IC muscles reduces the likelihood of vaginal penetration. The actions of GABA may be localized to hypothalamic or brain stem nuclei with GABAergic projections to the spinal motoneurons controlling the IC muscles, or GABA may act directly on these neurons.

L16 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS

1965:482235 Document No. 63:82235 Original Reference No. 63:15215c-g Practical applications of radioactivation analysis; **determination** of Mn in vegetables. Pijck, J. (Univ. Ghent). J. Pharm. Belg., 20(3-4), 131-6 (French) 1965.

AB cf. CA 61, 8137d. To **det**. 19-434 ppm. Mn in ginseng root (Araliaceae), sugarbeets, or plant material by neutron activation, irradiate 10-20 mg. of the ginseng ash (dry at 110.degree., and ash at 450.degree. in an elec. furnace), 150-300 mg. of dried (at 110.degree. and held in a desiccator) powd. sugar-beets, or raw ginseng sample (wrapped in parchment) for 5 min. in a thermal neutron flux of 1.3 .times. 1012 neutrons/cm.2/sec., along with 10-25 .**gamma**. Mn2+ standards (absorb the Mn2+ soln. on Whatman No. 1 filter paper, and dry under an ir lamp). Use 1 of 3 methods for purifying and measuring 56Mn: (A) pptn. as MnO2; (B) distn. as HMnO4 (CA 57, 6841b); or (C) nondestructive .**gamma**.-spectrometry. Method A. Transfer the irradiated ash samples and the Mn2+ standards, add 50 mg. Mn2+ carrier, 10 ml. HCl., 10 ml. HClO4, and heat to dissolve or mineralize. Add satd. KClO3 soln. (in concd. HNO3) dropwise until the MnO2 is completely pptd. Centrifuge, dissolve the ppt. with 30% H2O2, reppt. the MnO2 twice as described, and filter the ppt. on paper in a detachable filtering column. Count the .**gamma**.-activity of the 56MnO2 at 0.845 Mev. for 1 min. by integrating the .**gamma**.-activity of the surface of the 0.845 Mev. peak, by the method described previously (loc. cit.) with a multichannel analyzer and NaI(Tl) crystal. **Det**. the chem. yield

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by the NaBiO3 method. Method B. Transfer the irradiated ginseng ash, or powd. beet samples, and standards, to distg, flasks, add 500 . **gamma**. of Mn2+ carrier to each, evap. to dryness, mineralize by heating with 5 ml. of H2SO4-HClO4-HNO3 (1:1:3), (CA 53, 11503a), distil H56MnO4 as described previously (CA 57, 6841b), heat the distillate with 100 mg. of KIO4, dil. to 25 ml., and count the .**gamma**.-activity of an aliquot at 0.845 Mev. as described, using a well-type NaI(**TI**) crystal. To **det**. the chem. yield, measure the absorbance at 540 m.mu. of the other aliquot of treated distillate, comparing with that of a MnO4- soln. prepd. by treating a soln. of 500 .**gamma**. Mn2+, and dilg. to 25 ml. with H2O. Method C. Count the .**gamma** .-activity of the irradiated raw samples, and the standards at 0.845 Mev., using counting vials. Co and Fe do not interfere. Mn amts. (6 replicates) in 2 varieties of ginseng (B. and K.) contg. 4.05 and 2.60% ash, were, resp. (method, variety, and prepn.): A, B, ash, 26.1; B, B., ash, 25.8; C, B. ash, 25.8; C, B., 25.7; A, K., ash, 19.7; B, K., ash, 19.8; C, K. ash, 20.0; C, K. raw, 19.8 ppm. (dry basis). The results of the **detn**. of Mn in sugar-beets by method B and by the spectrophotometric method are, resp.: roots 434, 440; rootlets 425, 429; green petioles 327,321; petioles (fallen) 250-283, av. 272; 243-283, av. 266; **stalks** 250-287, av. 271; 268; limbs 128, 121 ppm. (dry basis). The calcd. detection limit for the described irradiation is 2.4 .times. 10-10 g. Mn.

```
=> s "tl-.gamma." or thermomyces lanuginosus gamma
L17           4 FILE MEDLINE
L18           4 FILE BIOSIS
L19         204 FILE CAPLUS
L20           7 FILE EMBASE
L21          15 FILE JICST-EPLUS
L22           1 FILE WPIDS

TOTAL FOR ALL FILES
L23         235 "TL-.GAMMA." OR THERMOMYCES LANUGINOSUS GAMMA

=> s l23 and (bind? or identif? or stalk or motor or tail domain)
L24           1 FILE MEDLINE
L25           1 FILE BIOSIS
L26           9 FILE CAPLUS
L27           0 FILE EMBASE
L28           3 FILE JICST-EPLUS
L29           1 FILE WPIDS

TOTAL FOR ALL FILES
L30          15 L23 AND (BIND? OR IDENTIF? OR STALK OR MOTOR OR TAIL DOMAIN)

=> s l30 not l15
L31           1 FILE MEDLINE
L32           1 FILE BIOSIS
L33           8 FILE CAPLUS
L34           0 FILE EMBASE
L35           3 FILE JICST-EPLUS
L36           1 FILE WPIDS

TOTAL FOR ALL FILES
L37          14 L30 NOT L15

=> dup rem 137
PROCESSING COMPLETED FOR L37
L38          14 DUP REM L37 (0 DUPLICATES REMOVED)
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=> d cbib abs 1-14

L38 ANSWER 1 OF 14 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-493950 [41] WPIDS
AB WO 9937659 A UPAB: 19991011
NOVELTY - New isolated nucleic acid (I) encoding a microtubule **motor** protein (MMP) that:
(i) has plus end-directed microtubule **motor** activity and
(ii) a **tail domain** with over 60% amino acid (aa) sequence identity with a **TL gamma** tail, as measured with a sequence comparison algorithm.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) expression vector containing (I);
(2) host cells transfected with this vector;
(3) isolated MMP;
(4) antibody (Ab) that **binds** specifically to **TL gamma** ;
(5) diagnosing hyphal fungal infections by detecting **TL gamma** ;
(6) screening for modulators of **TL gamma** ;
(7) kit for method (6);
(8) computer systems for screening for mutations in MMP genes and for **identifying** the three-dimensional structure of MMP; and
(9) method for **identifying** agents that **bind** to **TL gamma** , or its **stalk**, **motor** or **tail domains**.
ACTIVITY - Antimycotic; neuroprotective; fungicidal.
MECHANISM OF ACTION - MMP are involved in organelle, i.e. hyphal and axonal, transport.
USE - Detection of MMP (at protein or nucleic acid levels) is used to diagnose infection by hyphal fungi, in humans, animals or plants. MMP are also used to screen for specific modulators (potentially useful for treating hyphal fungal infections, in plants or animals, and diseases caused by mutated **TL gamma** , e.g. neurodegeneration involving anterograde axonal transport, such as Alzheimer's, Parkinson's or Huntington's diseases or amyotrophic lateral sclerosis); or to raise specific antibodies (Ab), useful as immunoassay reagents. (I), or its fragments, are used to **identify** polymorphic variants, alleles, homologs etc. of **TL gamma** , or other **motor** proteins, by hybridization or computer-assisted sequence comparison; to generate protein structural models; for recombinant production of MMP; as antisense molecules; for producing transgenic or knockout animals (used in screening for, and development of, therapeutic agents) and in gene therapy.
ADVANTAGE - Detection of **TL gamma** allows differentiation between hyphal and non-hyphal fungal infections.
Dwg.0/0

L38 ANSWER 2 OF 14 MEDLINE
1999322978 Document Number: 99322978. PubMed ID: 10394674. Gamma radiation fluctuations during alternative healing therapy. Benford M S; Talnagi J; Doss D B; Boosey S; Arnold L E. (PreComp, Inc, Dublin, Ohio, USA.. msbenford@aol.com) . ALTERNATIVE THERAPIES IN HEALTH AND MEDICINE, (1999 Jul) 5 (4) 51-6. Journal code: CLW; 9502013. ISSN: 1078-6791. Pub. country: United States. Language: English.
AB CONTEXT: The actual **identification** (let alone measurement) of "healing energy" has been elusive and controversial. Although healing energy has been defined as "subtle" and "undetectable," preliminary research indicates that these descriptions may be inaccurate. OBJECTIVE: To assess the fluctuation of extremely high-frequency electromagnetic fields, or gamma rays, during Polarity therapy treatment. DESIGN: A series

of gamma detection rate experiments were performed to establish a background and baseline count rate among 10 treatment and 20 control (10 sham and 10 standing-observer) subjects. SETTING: The Columbus Polarity Therapy Institute in Columbus, Ohio, and Public Health Information Services, Inc, in Dublin, Ohio. PARTICIPANTS: 30 volunteers recruited from Polarity and nonparticipant groups. INTERVENTION: Polarity therapy, a holistic bioenergy modality. MAIN OUTCOME MEASURES: The detection rate at 4 anatomical locations in space relative to each subject's body was measured using an NaI(**Tl**) **gamma** radiation detector operated in integral count mode. RESULTS: Marked decreases in gamma counts were found at every anatomical site location for all subjects during Polarity therapy, with less change noted during the standing-observer and sham sessions. Gamma radiation decreased in 100% of subjects during therapy sessions at every body site tested, regardless of which therapist performed the treatment. CONCLUSIONS: This preliminary study suggests a consistent and dramatic decrease in the number of gamma rays measured in a subject's electromagnetic field during one type of alternative healing energy treatment (Polarity therapy). The authors strongly recommend the collection of additional data, especially on subjects with cancer, whose long-term survival might be enhanced as a result of the radiation hormesis effects of alternative energy therapies.

L38 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2001 ACS

1998:596233 Document No. 129:194653 Field applications of the Scout portable MCA (multichannel analyzer). Cheng, A. Y.; Ziemba, F. P.; Browning, J. E. (Quantrad Sensor, Inc., Santa Clara, CA, 95054, USA). J. Radioanal. Nucl. Chem., 233(1-2), 251-255 (English) 1998. CODEN: JRNCDM. ISSN: 0236-5731. Publisher: Elsevier Science S.A..

AB The use of Quantrad Sensor's Scout in field type applications is described in a review with 7 refs. The portability of the Scout enables the user to obtain more accurate information in the field vs. a survey meter. Isotopic **identification** is possible when ancillary information is combined with built-in software libraries. Data from the Scout in remediation at Stanford Linear Accelerator (SLAC), NORM (Naturally Occurring Radioactive Material) measurements in California's Central Valley oil fields, medical isotope **identification** at nuclear pharmaceutical company and emergency response applications are presented. Addnl., custom software enabled the use of the Scout in **identification**, qualification and detection of Special Nuclear Materials (SNM) in illicit trafficking and portal monitoring applications.

L38 ANSWER 4 OF 14 BIOSIS COPYRIGHT 2001 BIOSIS

1997:95559 Document No.: PREV199799394762. Cloning, expression, and purification of kinesin superfamily members from the thermophilic fungus. Sakowicz, R.; Farlow, S.; Goldstein, L. S. B.. Howard Hughes Med. Inst., Div. Cell. Mol. Med., Dep. Pharmacol., Univ. Calif. San Diego, 9500 Gilman Dr., La Jolla, CA 92093-0683 USA. Molecular Biology of the Cell, (1996) Vol. 7, No. SUPPL., pp. 215A. Meeting Info.: Annual Meeting of the 6th International Congress on Cell Biology and the 36th American Society for Cell Biology San Francisco, California, USA December 7-11, 1996 ISSN: 1059-1524. Language: English.

L38 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2001 ACS

1996:542626 Document No. 125:205832 Studies on the level structure of 152Sm due to .beta.+ decay of 152Eu. Hassan, A. M.; Sroor, A.; Abou-Leila, M. A.; Abdel Malak, S.; Aly, Emad H. (Nuclear Research Centre, Atomic Energy Authority, Cairo, Egypt). Nucl. Sci. J., 33(3), 173-181 (English) 1996. CODEN: HTKHAB. ISSN: 0029-5647.

AB The gamma-ray spectra of 152Sm following the .beta.+ decay of 152Eu were measured up to 1800 keV by using a single hyper-pure germanium (HPGe) spectrometer, an HPGe-NaI(**Tl**) .**gamma**.-.gamma. coincidence spectrometer and a fast-low coincidence spectrometer. The

energies of 73 gamma-ray transitions as well as their intensities were **identified** and introduced into the suggested level structure. A new gamma-ray transition at 348.17 keV was found and fitted into the decay scheme. The positions of the 125- and 564-keV gamma-ray transitions were confirmed as well as the presence of the 212-, 237-, 683.8-, 727- and 735-keV gamma-ray transitions. The lifetime of the 121.66-keV level was found to be 1.38 .+-. 0.07 ns which was used to deduce the quadrupole moment of this level at 1.66 .+-. 0.008 .times. 10-24 cm2. Also the moment of inertia of this level was obtained in favor of the assumption of a rigid rotation which is expected for nuclei in the transitional region as in the case of 152Sm.

L38 ANSWER 6 OF 14 JICST-EPlus COPYRIGHT 2001 JST

950847156 Applicability of the Synthetic Storage Function Model to a Reclaimed Upland Field.. SUGIYAMA HIRONOBU; SUZUKI MITSUKATA; MANO KAZUMI; KUJIRAOKA YASUYO. Univ. of Tsukuba, Inst. of Agric. and For. Eng.; Univ. of Tsukuba. Nogyo Doboku Gakkai Ronbunshu (Transactions of the Japanese Society of Irrigation, Drainage and Reclamation Engineering). (1995) no. 178, pp. 545-551. Journal Code: S0345A (Fig. 15, Tbl. 1, Ref. 13) CODEN: 0387-2335; Pub. Country: Japan. Language: Japanese.

AB The synthetic storage function model expressed by considering catchment geomorphological features is useful for engineering convenience. So the following formulae which have the coefficients depending on the land conditions are applied to a reclaimed upland field in order to examine the applicability of the model. P=0.6, K=.BETA.A0.14, **Tl**=. **GAMMA**.A0.14.GAMMA.e-0.4 where A is the watershed area(km2), .GAMMA.e is the rainfall excess(mm/h), K and P are the parameter(mm-h), Tl is the time lag between rainfall excess and flood runoff discharge and both .BETA. and .GAMMA. are the coefficients depending on the land conditions. Firstly the characteristics of the parameter P is confirmed by examining the values obtained by applying a mathematical optimization technique. Nextly the usefulness of the applicability of the synthetic storage function model to a reclaimed upland field is verified by examing a difference between the parameters obtained by using the above-mentioned formulae and the **identified** parameters, and through comparisons between observed and simulated hydrographs. (author abst.)

L38 ANSWER 7 OF 14 JICST-EPlus COPYRIGHT 2001 JST

900317619 The influence of chemical composition on eutectic solidification and structures of high chromium cast irons.. TONG C-P; SUZUKI TOSHIO; UMEDA TAKATERU. Univ. of Tokyo, Graduate School; Univ. of Tokyo, Faculty of Engineering. Imono (Journal of Japanese Foundry Engineering Society). (1990) vol. 62, no. 2, pp. 130-137. Journal Code: G0096A (Fig. 15, Tbl. 1, Ref. 10) CODEN: IMNOA9; CODEN: 0021-4396; Pub. Country: Japan. Language: Japanese.

AB The influence of chemical composition was investigated on the eutectic solidification and the structure of high chromium cast irons with various carbon (2-3.5%) content and chromium(7-20%) content, to which silicon, nickel, molybdenum and vanadium were added as alloy elements. Liquidus temperature(**Tl**), (.**GAMMA**.+M7C3) eutectic temperature(Te) and solidification finishing temperature(Tf) depend mainly on the carbon content. The larger the carbon content, the lower the Tl, Te and Tf. On the other hand, for the alloy with a constant carbon content, (.GAMMA.+M7C3) eutectic temperature(Te) and solidification finishing temperature(Tf) increase, however, liquidus temperature(Tl) remains almost unchanged with increase of chromium content. Two kinds of eutectic carbides (M7C3 and M3C) appear in 7% Cr cast irons with more than 2% C and also in 10% Cr cast irons with more than 3% C. The monovariant (.GAMMA.+M3C) eutectic solidification starts at 1157.DEG.C.. (.GAMMA.+Mo2C) eutectic structure was **identified** in all cast irons with 1%Mo or more. Amount of eutectic carbides in determined by the contents of carbon and chromium. (author abst.)

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L38 ANSWER 8 OF 14 JICST-EPlus COPYRIGHT 2001 JST
880388591 Study on the synthetic storage function model.. SUGIYAMA HIRONOBU; KADOYA MUTSUMI; NAGAI AKIHIRO. Univ. of Tsukuba, Inst. of Agricultural and Forestry Engineering; Kyoto Univ., Disaster Prevention Res. Inst.; Okayama Univ., Faculty of Agriculture. Nogyo Doboku Gakkai Ronbunshu (Transactions of the Japanese Society of Irrigation, Drainage and Reclamation Engineering). (1988) no. 134, pp. 69-75. Journal Code: S0345A (Fig. 8, Ref. 7) CODEN: 0387-2335; Pub. Country: Japan. Language: Japanese.
AB A study is carried out of the possibility of synthesizing the storage function model which is regarded as one of the representative models for flood runoff analysis in Japan, in order to expand the applicability of the model being basically the lumped style to a watershed with several land use conditions. The storage function model has three parameters, K,P and Tl, as seen in the following fundamental equation Sl=KQP,Sl=.INT.0t-Tlredt-.INT.0tQdt in which, Sl is the hypothetical storage depth of rain water over the watershed considering the time lag Tl between rainfall excess re and flood runoff discharge Q. First, the parameters **identified** for 48 floods in 14 watersheds by applying a methematical optimization technique are examined statistically and their estimation formulae are summarized as follows: P=0.6, K=.BETA.A0.14, **Tl**=.**GAMMA**.A0.14re-0.14,in which A is the watershed area (km2), re the rainfall excess (mm/h) and both .BETA. and .GAMMA. are the coefficients depending on the land conditions. Next, the reasonable method for applying the storage function model as a distributed model using the above-mentioned formulae is discussed and its usefulness is verified.(author abst.)

L38 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2001 ACS
1986:467806 Document No. 105:67806 Studies on the decay of tungsten-187. Hassan, A. M.; Abdel-Malak, S.; Abou-Leila, M. A.; El-Shershaby, A; Ismail, H. A. (React. Neutron Phys. Dep., Nucl. Res. Cent., Cairo, Egypt). Acta Phys. Hung., 60(1-2), 95-105 (English) 1986. CODEN: APHUE2.
AB The .gamma.-ray spectrum owing to the decay of 187W [14983-48-3] (23.9 h) to 187Re [14391-29-8] was investigated by using Ge(Li), hyper pure Ge and the Ge(Li)-NaI(**Tl**) .**gamma**.-.gamma. coincidence spectrometers. More than 60 .gamma.-ray lines could be **identified** and fitted in a proposed level structure of 187Re. The energy levels as well as the .gamma.-ray transitions used to reconstruct the level structure of this nucleus are discussed.

L38 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2001 ACS
1971:457215 Document No. 75:57215 Levels in ruthenium-101 populated by the decay of technetium-101. Aras, Namik K.; Fettweis, P.; Chilosi, G.; O'Kelley, G. Davis (Oak Ridge Natl. Lab., Oak Ridge, Tenn., USA). Nucl. Phys. A, 169(1), 209-24 (English) 1971. CODEN: NUPABL.
AB The decay properties of 14-min 101Tc were investigated by using Ge(Li) and NaI(**Tl**) .**gamma**.-ray and anthracene .beta.-ray detectors. Coincidence relations between the .gamma.-rays were detd. with the aid of a multiparameter analyzer. Numerous .gamma.-rays (33) could be **identified**. Two strong .beta.-groups with end-point energies of 1.32 and 1.07 MeV were in coincidence with 306.7 and 544.7 keV .gamma.-rays, resp. A decay scheme consistent with the coincidence data is presented, with levels at 127.1, 306.7, 311.2, 422.4, 544.7, 616.1, 720.0, 842.6, 911.1, 928.2, and 918.1 keV. Spin assignments for the excited levels in 101Ru are proposed.

L38 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2001 ACS
1972:43625 Document No. 76:43625 Determination of trace elements in Pisum genotypes by thermal neutron-activation analysis. Moauro, A.; Di Finizio, A. (Lab. Oper. Calde, Com. Naz. Energ. Nucl., Rome, Italy). Com. Naz.

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Energ. Nucl., RT/CHI(70)40, 17 pp. (English) 1970. CODEN: CNENA4.

AB A study was made to det. whether there are important variations of essential micronutrients among various Pisum genotypes either in seeds or in plants grown from them under controlled conditions. Samples and stds. were irradiated for 120 hr in a flux of 1013 neutrons/cm2-sec. There was a very low variability for Cu, and higher deviations for Cs, Rb, and Mo. Deviations could be related to the biol. role of elements; essential elements should not have high concn. variations. The accuracy of the instrumental method was checked by sepg. Fe, Co, and Zn by chromatog. and measuring with the NaI (**Tl**) **gamma** detector. The agreement between these methods was within 15% for Zn. For Co and Fe, this limit was raised to 30% because of the high background of the prevalent activity of 65Zn in the region of 60Co and 59Fe gamma peaks. This method did not permit **identification** of nuclides emitting low energy gamma rays (.ltoreq.300 KeV), because of the bremstrahlung from .gamma.-emitters (32P and 32S); a sepn. step from these interfering nuclides seemed to be necessary.

L38 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2001 ACS

1966:470272 Document No. 65:70272 Original Reference No. 65:13077e-f Incoherent scattering of 280-kev. .gamma.-rays. Sood, B. S.; Singh, M.; Anand, S. (Panjab Univ., Chandigarh). Proc. Nucl. Phys. Solid State Phys. Symp., Chandigarh, India (Pt. A), 300-3 (English) 1964.

AB The scattering was studied of low-energy .gamma.-rays from Cu, Fe, and Al through small angles in order to investigate the effects of **binding** of e to the atom and their motions and distributions within the atom. A 203Hg source was used and the scattered radiation was analyzed with a single channel NaI(**Tl**) .**gamma**.-ray spectrometer. The scattering angle was varied from 4.degree. to 10.degree.. Methods of calcns. are given. Exptl. values were found to be lower than those predicted by the Klein-Nishina formula and higher than those calcd. for the Fermi-Thomas atom.

L38 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2001 ACS

1959:88050 Document No. 53:88050 Original Reference No. 53:15804c-e Radiative deuteron capture in Zn64(d,.gamma.)Ga66. Carver, J. H.; Jones, G. A. (At. Energy Research Estab., Harwell, UK). Nuclear Phys., 11, 400-10 (Unavailable) 1959.

AB Induced radioactivity methods were used to observe the above capture in Zn64 for deuteron energies of 3.5 to 4.5 m.e.v. Observations were made with NaI (**Tl**) .**gamma**.-ray spectrometers used singly and in coincidence and the 9.5-hr. Ga66 activity was **identified** in the presence of an intense 245-day Zn65 activity resulting from the Zn64 (d,p) and (d,n) reactions. At a deuteron energy of 4.5 m.e.v. .sigma. (d,.gamma.) = 80 .+-. 12.mu.b. and .sigma.(d,n + d,p) = 0.16 .+-. 0.02b. The cross section ratio, .sigma. (d,.gamma.)/.sigma. (d,n + d,p) = 0.50 .+-. 0.08 .times. 10-3, was const. for 3.5 to 4.5 m.e.v. deuterons. The magnitudes of the cross sections and their variation with energy were consistent with an interpretation in terms of the statistical decay of a compd. nucleus, the radiative probability being calcd. from photodisintegration data.

L38 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2001 ACS

1954:38416 Document No. 48:38416 Original Reference No. 48:6857h-i,6858a .gamma.-Rays from neon. Foster, B. P.; Stanford, G. S.; Lee, L. L., Jr. (Yale Univ.). Phys. Rev., 93, 1069-72 (Unavailable) 1954.

AB The decay scheme of the low-lying excited states of Ne22 was investigated by means of a proton .gamma.-ray coincidence study of the F19(.alpha.,p)Ne22 reaction, by using a NaI (**Tl**) .**gamma** .-scintillation spectrometer. The excitation energies of the 2nd and 3rd excited states were rechecked and were 3.3 and 4.9 m.e.v., resp. The results cast considerable doubt on the level reported at 0.6 m.e.v. A

single transition to the ground state was **identified** for the 1.28-m.e.v. excited state. The 2nd excited state decayed principally by a cascade transition through the 1st excited state, although a weaker crossover transition direct to the ground state was also observed. The 3rd excited state decayed through transitions to both the 1st excited and ground states. A discussion of possible spin and parity assignments by means of the Weisskopf relations (C.A. 45, 10073g) is presented.

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=> s (sakowicz, r? or sakowicz r?)/au,in;s (goldstein, l? or goldstein l)/au,in
'IN' IS NOT A VALID FIELD CODE
L39           8 FILE MEDLINE
L40          12 FILE BIOSIS
L41          20 FILE CAPLUS
'IN' IS NOT A VALID FIELD CODE
L42           7 FILE EMBASE
L43           0 FILE JICST-EPLUS
L44           6 FILE WPIDS

TOTAL FOR ALL FILES
L45          53 (SAKOWICZ, R? OR SAKOWICZ R?)/AU,IN


'IN' IS NOT A VALID FIELD CODE
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'IN' IS NOT A VALID FIELD CODE
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TOTAL FOR ALL FILES
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L55           9 FILE CAPLUS
L56           5 FILE EMBASE
L57           0 FILE JICST-EPLUS
L58           3 FILE WPIDS

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L62           8 FILE CAPLUS
L63           5 FILE EMBASE
L64           0 FILE JICST-EPLUS
L65           2 FILE WPIDS

TOTAL FOR ALL FILES
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L67          13 DUP REM L66 (14 DUPLICATES REMOVED)

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Searched by: Mary Hale 308-4258 CM-1 12D16
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L67 ANSWER 1 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS
2001:461909 Document No.: PREV200100461909. Kinesin motor modulators derived from the marine sponge Adocia. **Goldstein, Lawrence S. B.**; Faulkner, David John; **Sakowicz, Roman**; Berdelis, Michael S.; Blackburn, Christine L.; Hopmann, Cordula. San Diego, CA USA. ASSIGNEE: The Regents of the University of California. Patent Info.: US 6207403 March 27, 2001. Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 27, 2001) Vol. 1244, No. 4, pp. No Pagination. e-file. ISSN: 0098-1133. Language: English.

AB This invention provides novel compounds derived from a marine sponge, Adocia sp., that specifically modulat kinesin activity by targeting the kinesin motor domain and mimicking the activity a microtubule. The compounds act as potent anti-mitogens are useful in a wide variety of in vitro and in vivo applications.

L67 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
1999:451195 Document No. 131:97592 Kinesin motor modulators derived from the marine sponge adocia. **Goldstein, Lawrence S. B.**; Faulkner, David John; Sakowicz, Roman; Berdelis, Michael S.; Blackburn, Christine L.; Hopmann, Cordula (The Regents of the University of California, USA). PCT Int. Appl. WO 9934806 A1 19990715, 73 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1999-US321 19990106. PRIORITY: US 1998-70772 19980108.

AB This invention provides novel compds. derived from a marine sponge, Adocia sp., that specifically modulate kinesin activity by targeting the kinesin motor domain and mimicking the activity of a microtubule. The compds. act as potent anti-mitogens and are useful in a wide variety of in vitro and in vivo applications [e.g. in mitigating a variety of pathol. conditions characterized by abnormal cell mitosis].

L67 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
1999:194248 Document No. 130:233824 Plus end-directed microtubule motor protein CENP-E required for Xenopus chromosome congression. Wood, Kenneth W.; **Sakowicz, Roman; Goldstein, Lawrence S. B.**; Cleveland, Don W. (The Regents of the University of California, USA). PCT Int. Appl. WO 9913061 A1 19990318, 78 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US19231 19980910. PRIORITY: US 1997-58645 19970911.

AB The invention provides isolated nucleic acid and amino acid sequences of Xenopus centromere-assocd. protein-E (XCENP-E), antibodies to XCENP-E, methods of screening for CENP-E modulators using biol. active CENP-E, and kits for screening for CENP-E modulators. The full-length cDNA sequences of XCENP-E encodes a protein of 2954 amino acids with a predicted mol. mass of 340 kDa. XCENP-E is a member of the kinesin superfamily of motor proteins, and consists of a 500-amino acid globular N-terminal domain contg. a kinesin-like microtubule motor domain linked to a globular tail domain by a region predicted to form a long, discontinuous .alpha.-helical coiled coil. The is the first biol. active CENP-E isolated and, surprisingly and contrary to previous reports, it demonstrates a motor

that powers chromosome movement toward microtubule plus ends. Using immunodepletion and antibody addn. to Xenopus egg exts., the present invention further demonstrates that CENP-E plays an essential role in congression.

L67 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
1999:420033 Document No. 131:211782 Adociasulfates 1-6, inhibitors of kinesin motor proteins from the sponge Haliclona (aka Adocia) sp.. Blackburn, Christine L.; Hopmann, Cordula; **Sakowicz, Roman**; Berdelis, Michael S.; **Goldstein, Lawrence S. B.**; Faulkner, D. John (Scripps Institution of Oceanography, University of California at San Diego, La Jolla, CA, 92093-0212, USA). J. Org. Chem., 64(15), 5565-5570 (English) 1999. CODEN: JOCEAH. ISSN: 0022-3263. Publisher: American Chemical Society.
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Adociasulfates 1-6 were isolated from an ext. of the Palauan sponge Haliclona (aka Adocia) sp. that inhibited the transport of stabilized microtubules by the motor protein kinesin, which was immobilized on a microscope slide. The structures of adociasulfates 1-6, the relative stereochem. of adociasulfates 1 (I), 2, 5, and 6, and the relative stereochem. of subunits of adociasulfates 3 (II) and 4 were detd. by interpretation of spectroscopic data. In a quant. assay that measures ATP hydrolysis by kinesin, adociasulfates 2 and 6 were the most active.

L67 ANSWER 5 OF 13 MEDLINE DUPLICATE 4
2000095847 Document Number: 20095847. PubMed ID: 10631986. Cloning and expression of kinesins from the thermophilic fungus Thermomyces lanuginosus. **Sakowicz R**; Farlow S; **Goldstein L S**. (Howard Hughes Medical Institute, Department of Cellular and Molecular Medicine, School of Medicine, University of California, San Diego, La Jolla 92093-0683, USA.) PROTEIN SCIENCE, (1999 Dec) 8 (12) 2705-10. Journal code: BNW; 9211750. ISSN: 0961-8368. Pub. country: United States. Language: English.
AB The motor domain regions of three novel members of the kinesin superfamily TLKIF1, TLKIFC, and TLBIMC were identified in a thermophilic fungus Thermomyces lanuginosus. Based on sequence similarity, they were classified as members of the known kinesin families Unc104/KIF1, KAR3, and BIMC. TLKIF1 was subsequently expressed in Escherichia coli. The expression level was high, and the protein was mostly soluble, easy to purify, and enzymatically active. TLKIF1 is a monomeric kinesin motor, which in a gliding motility assay displays a robust plus-directed microtubule movement up to 2 microm/s. The discovery of TLKIF1 also demonstrates that a family of kinesin motors not previously found in fungi may in fact be used in this group of organisms.

L67 ANSWER 6 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS
1999:185585 Document No.: PREV199900185585. Single-molecule studies of fluorescent proteins and enzymes. Moerner, W. E. (1); Peterman, E. J.; Sosa, H.; Brasselet, S.; Dickson, R. M.; Kummer, S.; **Sakowicz, R.** ; **Goldstein, L. S. B.**. (1) Department of Chemistry, Stanford University, Stanford, CA USA. Biophysical Journal, (Jan., 1999) Vol. 76, No. 1 PART 2, pp. A20. Meeting Info.: Forty-third Annual Meeting of the Biophysical Society Baltimore, Maryland, USA February 13-17, 1999 ISSN: 0006-3495. Language: English.

L67 ANSWER 7 OF 13 MEDLINE DUPLICATE 5

Searched by: Mary Hale 308-4258 CM-1 12D16

1998202613 Document Number: 98202613. PubMed ID: 9535660. A marine natural product inhibitor of kinesin motors. **Sakowicz R;** Berdelis M S; Ray K; Blackburn C L; Hopmann C; Faulkner D J; **Goldstein L S.** (Department of Pharmacology, Division of Cellular and Molecular Medicine, Howard Hughes Medical Institute, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0683, USA.) SCIENCE, (1998 Apr 10) 280 (5361) 292-5. Journal code: UJ7; 0404511. ISSN: 0036-8075. Pub. country: United States. Language: English.

AB Members of the kinesin superfamily of motor proteins are essential for mitotic and meiotic spindle organization, chromosome segregation, organelle and vesicle transport, and many other processes that require microtubule-based transport. A compound, adociasulfate-2, was isolated from a marine sponge, Haliclona (also known as Adocia) species, that inhibited kinesin activity by targeting its motor domain and mimicking the activity of the microtubule. Thus, the kinesin-microtubule interaction site could be a useful target for small molecule modulators, and adociasulfate-2 should serve as an archetype for specific inhibitors of kinesin functions.

L67 ANSWER 8 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS

1999:15470 Document No.: PREV199900015470. Study of the orientation of kinesin motors bound to microtubules using single molecule fluorescence polarization spectroscopy. Sosa, H. (1); Peterman, E. J. G.; Dickson, R. M.; **Sakowicz, R.**; Moerner, W. E.; **Goldstein, L. G.**. (1) Dep. Pharmacology, Univ. Calif., San Diego, CA 92093 USA. Molecular Biology of the Cell, (Nov., 1998) Vol. 9, No. SUPPL., pp. 28A. Meeting Info.: 38th Annual Meeting of the American Society for Cell Biology San Francisco, California, USA December 12-16, 1998 American Society for Cell Biology. ISSN: 1059-1524. Language: English.

L67 ANSWER 9 OF 13 MEDLINE DUPLICATE 6

1998028574 Document Number: 98028574. PubMed ID: 9363944. CENP-E is a plus end-directed kinetochore motor required for metaphase chromosome alignment. Wood K W; **Sakowicz R; Goldstein L S;** Cleveland D W. (Laboratory of Cell Biology, Ludwig Institute for Cancer Research, University of California at San Diego, La Jolla 92093-0660, USA.) CELL, (1997 Oct 31) 91 (3) 357-66. Journal code: CQ4; 0413066. ISSN: 0092-8674. Pub. country: United States. Language: English.

AB Mitosis requires dynamic attachment of chromosomes to spindle microtubules. This interaction is mediated largely by kinetochores. During prometaphase, forces exerted at kinetochores, in combination with polar ejection forces, drive congression of chromosomes to the metaphase plate. A major question has been whether kinetochore-associated microtubule motors play an important role in congression. Using immunodepletion from and antibody addition to Xenopus egg extracts, we show that the kinetochore-associated kinesin-like motor protein CENP-E is essential for positioning chromosomes at the metaphase plate. We further demonstrate that CENP-E powers movement toward microtubule plus ends in vitro. These findings support a model in which CENP-E functions in congression to tether kinetochores to dynamic microtubule plus ends.

L67 ANSWER 10 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS

1998:20152 Document No.: PREV199800020152. CENP-E is a plus end-directed kinetochore motor required for chromosome congression. Wood, K. W. (1); **Sakowicz, R.; Goldstein, L. S. B.**; Cleveland, D. W. (1). (1) Lab. Cell Biol., Ludwig Inst. Cancer Research, La Jolla, CA 92093-0660 USA. Molecular Biology of the Cell, (Nov., 1997) Vol. 8, No. SUPPL., pp. 125A. Meeting Info.: 37th Annual Meeting of the American Society for Cell Biology Washington, D.C., USA December 13-17, 1997 American Society for Cell Biology. ISSN: 1059-1524. Language: English.

L67 ANSWER 11 OF 13 MEDLINE

Searched by: Mary Hale 308-4258 CM-1 12D16

96196874 Document Number: 96196874. PubMed ID: 8612068. The muscle in kinesin. **Sakowicz R; Goldstein L S.** NATURE STRUCTURAL BIOLOGY, (1996 May) 3 (5) 404-7. Journal code: B98; 9421566. ISSN: 1072-8368. Pub. country: United States. Language: English.

L67 ANSWER 12 OF 13 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 7
1996:278444 Document No.: PREV199699000800. The muscle in kinesin. **Sakowicz, Roman; Goldstein, Lawrence S. B.**. Howard Hughes Med. Inst., Div. Cellular Molecular Med., Dep. Pharmacology, Univ. Calif. San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0683 USA. Nature Structural Biology, (1996) Vol. 3, No. 5, pp. 404-407. ISSN: 1072-8368. Language: English.

L67 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2001 ACS
1997:151799 Document No. 126:234999 Single molecules solvated in pores of polyacrylamide gels. Dickson, Robert M.; Norris, D. J.; Tzeng, Yih-Ling; **Sakowicz, R.; Goldstein, L. S. B.**; Moerner, W. E. (Department Chemistry Biochemistry, University California San Diego, La Jolla, CA, 92093-0340, USA). Mol. Cryst. Liq. Cryst. Sci. Technol., Sect. A, 291, 31-39 (English) 1996. CODEN: MCLCE9. ISSN: 1058-725X. Publisher: Gordon & Breach.

AB Individual fluorescent mols. and individual singly-labeled proteins have been obsd. in the water-filled pores of poly(acrylamide) gels with far-field microscopy. The mol. range of motion is dramatically reduced by the gel framework, thus allowing single mols. to be studied in an aq. environment for long periods of time. For the small fluorophores, the gel restricts Brownian motion by approx. two orders of magnitude in each direction, thus greatly enhancing the mol.'s detectability. In contrast to dry polymeric hosts, the gel is composed primarily of water and the majority of mols. remain in soln., thus making these gels an ideal medium in which to utilize single mol. detection methods for the study of biol. systems in vitro.

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